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PROBLEM STATEMENT NO:
DATE OF RECEIPT:

STAGE I RESEARCH PROBLEM STATEMENT

I. PROBLEM TITLE (required): The KEYS (Keep Encouraging Young-driver Safety) Pilot Study: Increasing Parent Involvement in Teenage Driving through Driver Education.

II. PROBLEM STATEMENT (required): Teen driving is deeply rooted in the American and Montana culture, but, unfortunately, crashes are the leading cause of death and injury among teens ages 14 to 19. Producing "safe" teen drivers was traditionally the role of driver education in the schools; however, institutionalized limitations and evolving complexities of driving and the highway transportation system reduced its effectiveness. Given that safe driving is a product of more than just knowing how to maneuver a car, current efforts to produce safe teen drivers must reinvent traditional institutions of the past and focus on innovative solutions; we must change the "culture of teen driving," and graduated driver licensing (GDL) was the first major step in doing so (Hartos & Huff, 2007). GDL has established a drawn out process for teenagers to gain a full-privilege license, including mandating phases for increased practice driving and restricted independent driving. No longer can teenagers under 18 get a permit and then days later get an unrestricted license.

However, to ensure that the benefits of GDL are realized, all three countermeasures that address teen driving risk—GDL, driver education, and parent involvement—need to be integrated. Most GDL policies require parent- or adult-supervised practice during the learner's permit phase, but "requiring it" and having it done thoroughly and well are not necessarily the same thing. Therefore, integrating parent involvement into driver education could ensure that parents get the necessary information and instruction for supervising practice driving from a highly-qualified source. In addition, although GDL restricts teen independent driving during the provisional licensing phase, restrictions vary from state to state and rarely approach the strictest limits that would be consistent with teen driver safety research. Thus, driver education could also provide parents with the knowledge and resources necessary for limiting teen independent driving under high-risk conditions during restricted and unrestricted licensing phases.

Over the last decade, evidence-based strategies to successfully increase parent involvement in young driver safety have been identified, including to: (a) target parents in programmatic efforts, (b) promote high initial parent expectations for young driver safety, and (c) expose parents to goal-oriented persuasion (see review, Hartos & Simons-Morton, 2006). And, although research indicates that parents want and need information about issues related to young driver safety (Simons-Morton, 2007), simply providing it is not as effective at increasing parent involvement as desired (see review, Hartos & Simons-Morton, 2006; see review,

Simons-Morton & Ouimet, 2006). In the field of educational psychology, research shows that parent involvement in children's education (in which public or private driver education clearly falls) can be increased by clearly defining parent roles and responsibilities and inviting parents to participate (Deslandes & Bertrand, 2005; see review, Hoover-Dempsey et al, 2005).

Our preliminary research with 321 parents of teenagers enrolled in driver education throughout Montana, where the proposed project will be conducted, indicates that 76% of parents believe that they should be required to be involved in driver education; most want parent information and instruction from driver education on many topics related to young driver safety; many want information about how to assess their teenagers' progress; and most would prefer written materials sent home (Hartos & Huff, 2006; 2007). Thus, integrating parent involvement into the driver education curriculum by having parent-teen "homework assignments" would not only provide parents with consistent, timely, and quality information and instruction about young driver safety, but it may also increase parent motivation to supervise, restrict, and monitor their teenagers' driving.

III. RESEARCH PROPOSED (required):

In this pilot study, a multidisciplinary group of researchers (including PI, Dr. Hartos), policy makers (including Co-I, Mr. Huff), and practitioners (including experienced driver education instructors) will develop, adapt, and pilot parent-teen homework assignments for use with the driver education curriculum. Homework assignments will utilize the evidence-based strategies to increase parent involvement by including them in programmatic efforts; promoting parent establishment of strict initial expectations for young driver safety; exposing parents to goal-oriented persuasion; and clearly defining parent roles and responsibilities and inviting parents to participate. This pilot study will then survey the parents at the end of the class to evaluate the process and the homework and capture their thoughts and feelings about being involved with homework in driver education and suggestions for improvements.

This pilot study is a joint project of the Montana Traffic Education Association, The Traffic Education Unit of the Montana Office of Public Instruction, and national researcher Dr. Jessica Hartos, researcher with the University of North Carolina, Charlotte, and former post-doctorate fellow of the National Institute of Child Health and Human Behavior. The Montana Traffic Education Association will be the fiscal agent for the project relative to stipends and incentives to the various participating schools.

The following two paragraphs of the comprehensive research project of which this pilot study is the initial step, provides the context for this pilot study.

The ***KEYS (Keep Encouraging Young-driver Safety) Project***, is an efficacy trial to determine whether integrating parent involvement into driver education will enhance the widespread adoption and institutionalization of effect strategies to increase parent supervision, restriction, and monitoring of adolescent driving and the safety of our youngest driers This study is unique in that it will be the first evaluation of a state-level comprehensive effort to involve parents in driver

education, and it is innovative because it will do so by integrating parent-teen homework assignments into the driver education curriculum.

To determine the effectiveness of parent-teen homework assignments, driver education classes throughout Montana will be assigned as either "control" and use the current driver education curriculum or "intervention" and use the curriculum plus integrated parent-teen homework assignments. Families will be recruited at the beginning of driver education classes in fall, spring, and summer semesters and followed for one year. Data will be collected from driver education instructors, policy makers, parents, and teenagers at pre-test and post-test about the practicality and effectiveness of homework assignments; from parents and teenagers at two months, six months, and 12 months after driver education about parent involvement in adolescent driving and adolescent driver safety; and from driver records at 16 months after driver education for tickets and crashes.

IV. IT COMPONENT (required): Identify if the project includes an IT component (purchasing of IT hardware, development of databases, acquisition of existing applications, etc) or not. If so, describe IT component in as much detail as possible.

None

V. URGENCY AND EXPECTED BENEFITS (required):

With the Montana Graduated Driver License having just been implemented in July of 2006 and public curiosity and interest elevated in how it affects their families, now is a good time to take advantage of that curiosity and interest and provide additional tools that can help parents with their supervisory role in the Graduated Driver license law. This pilot study will develop materials that can be used by Montana driver education programs and the parents of the teens they train whether or not the comprehensive research project is funded. However, the comprehensive project cannot be conducted without the product this pilot study develops and tests. The importance of this approach to improving teen driver education is captured in the following paragraph which describes the combined comprehensive research project.

The findings from this study will have implications for research, practice, and policy beyond this study. The proposed project will be conducted across Montana and will include majority and minority groups, urban and rural areas, and high income and low income areas; thus, findings from this study will inform research, practice, and policy of all types—independent, public, private—and at all levels—state, regional, community. It will provide valuable information about whether integrating parent involvement into driver education is practical and effective within different environments and for different population groups, as well as whether it is an effective approach for increasing parent supervision, restriction, and monitoring of teenage driving and reducing young driver risk. Any and all intervention and data collection materials developed in this study will be available to those who want them.

VI. IMPLEMENTATION PLAN (required): This pilot study is the first phase and pilot of a larger comprehensive research project for which funding is being sought from other sources. The project plan outlined on the following pages includes the Concept Model and Timeline for the combined pilot study and comprehensive research project. This pilot study covers the first phase and is identified by brown print. If funding is not obtained to coincide with this pilot portion, the pilot study will initiate and progress independent of the comprehensive research portion. The comprehensive piece will then follow independent of this pilot at the time funding is obtained.

The timeline established in the attached pages assumed an early fall 2007 award of funding, which was not met. The schedule for this pilot will be adjusted according to the time of the pilot grant award and follow a comparable sequence as outlined herein.

BUDGET:

Consultant, Dr. Jessica Hartos	$2,000
Printing	5,000
Misc Supplies	1,000
Project advisors travel (Traffic Ed Teachers)	4,000
Project manager and coordinators travel to schools	750
Participant Incentives: Schools, Instructors, parents	2,500
Project facilitation stipends (4@$1,000)	4,000
Postage/Delivery	750
Telephone/fax	750
Administrative fee (Montana Traffic Ed Assn.)	1,000
TOTAL	$ 21,750.00

Budget Narrative:

Contracted Services - Consultant

- What is the daily fee of consultant? *The daily fee for this project is $500 and includes travel to Montana from Charlotte, NC*
- How many days will service be provided? *A minimum of 4 days over two trips.*
- What service will be provided? *Dr. Hartos will provide intellectual oversight to the project linking research protocols, findings and recommendations to efforts of product developers and to product testing, and to ensure the product will meet requirements for the anticipated research project funded by the Centers for Disease Control and Prevention.*

Supplies & Materials

Printing costs of $5,000 will cover costs to print materials developed by this project, which will then be distributed to schools for pilot testing with students and parents. Research indicates that printed materials have a much greater impact upon parents and teens if in color and professional appearance.

Misc. Supplies of $1,000 will cover a variety of items like the cost of product packaging, envelopes, meeting supplies, tablets, etc.

Travel Expenses and Per Diem

- Indicate mileage and per diem calculations using state rates.

Project advisors include traffic education teachers solicited to help develop parent/teen homework and driver readiness assessment tools to be used by the parent/teen dyad. It is anticipated that 10 teachers will be solicited for this purpose and that mileage at state rate of $.49 per mile, room rate of appx. $60 per night (whatever state rate is at the time) and in-state meal expenses will apply. Since some teachers will travel farther than others, an average of $200 per teacher was used for each meeting to build the budget. Ten instructor advisors for two meetings (curriculum home work development and then training) @ $200 per meeting results in $4,000.

Project manager and 2 coordinators will travel to schools to monitor and provide technical assistance. At $.49 per mile, $350 allows for up to 714 miles between three staff, less miles if travel requires meals and lodging.

Incentives and Stipends

Participant incentives include 2 schools @ $250 each or $500; 5 instructors/classes to facilitate qualitative testing with students and parents @ 100 per class or $500; 60 parent/teen dyads at $25 each to pilot and provide qualitative feedback or $1,500. Total is $2,500.

Project staff facilitation stipends. Stipends are based upon 12 months or 4 semester/quarters of project facilitation at $1,000 flat fee per staff person payable quarterly at $250 per quarter/semester.. Following is a breakdown of staff positions and related responsibilities.

1) *<u>Project Manager, Jim Carroll</u>*
   - *a) Will supervise, track, record, and report the distribution of project monies for staffing, participant incentives, and necessary goods and services in Montana for the KEYS Project*
   - *b) Will work closely with Logistics Coordinator and Driver Instructor Coordinators in distributing and recording use of project monies*
   - *c) Will work fall, winter, spring, and summer semesters in years 1, @ $250/semester/quarter (total stipend $1,000)*

2) *<u>P/T Logistics Coordinator, TBD (1)</u>*
   - *a) Person affiliated with MTEA or other person familiar with the MTEA community who is experienced in determining and managing logistical issues in projects across the state*
   - *b) Will coordinate, maintain, distribute, and keep detailed records for program materials to schools and incentives to participants, and will coordinate logistics for project training workshops*
   - *c) Will work fall, winter, spring, and summer semesters in Year 1 @ $250/semester (flat fee) (Total stipend $1,000)*

3) *<u>P/T Driver Education (DE) Coordinators, TBD (2)</u>*
   - *a) 2 driver education teachers recognized for their expertise and leadership in traffic education (likely those recognized as Montana driver education teachers of the year)*

b) Will serve as "experts" representing different regions (East or West) and populations (rural, Native American, lower-income) of Montana in the working group to adapt intervention materials, methods, and strategies for parent involvement in teen driver education

c) Will also travel and serve as liaisons to DE instructors participating in the pilot testing; will provide technical assistance to instructors; and will have weekly contact with DE instructors throughout the project pilot testing, evaluation, and feedback.

d) Will work fall, winter, spring, and summer semesters in year 1 @ $250/semester/quarter per person (Total stipend $1,000)

Postage, estimation of $750 will cover mailing printed product as well as other mailed communications between schools and project staff. Will be billed based upon actual expenses.

Telephone and fax estimation of $750 will cover actual costs of document phone and fax events.

- Is mileage and per diem directly related to project activities?

Yes, this travel is needed to bring group together for developing project product, and to cover travel of staff to visit school sites and provide technical assistance.

- If out-of state travel is anticipated, and has been approved in writing by the Program Specialist, provide: location, state, dates, purpose, cost.

No out-of-state travel is billed under this project. The only out-of-state travel that will occur is by project consultant Dr. Jessica Hartos and is covered by her consulting fee.

In-Kind Staff:

David Huff will also serve as a project manager. His services are donated by the Office of Public Instruction

Figure 1. Conceptual Model for the KEYS Project (Brown text indicates Montana Pilot Project portion)

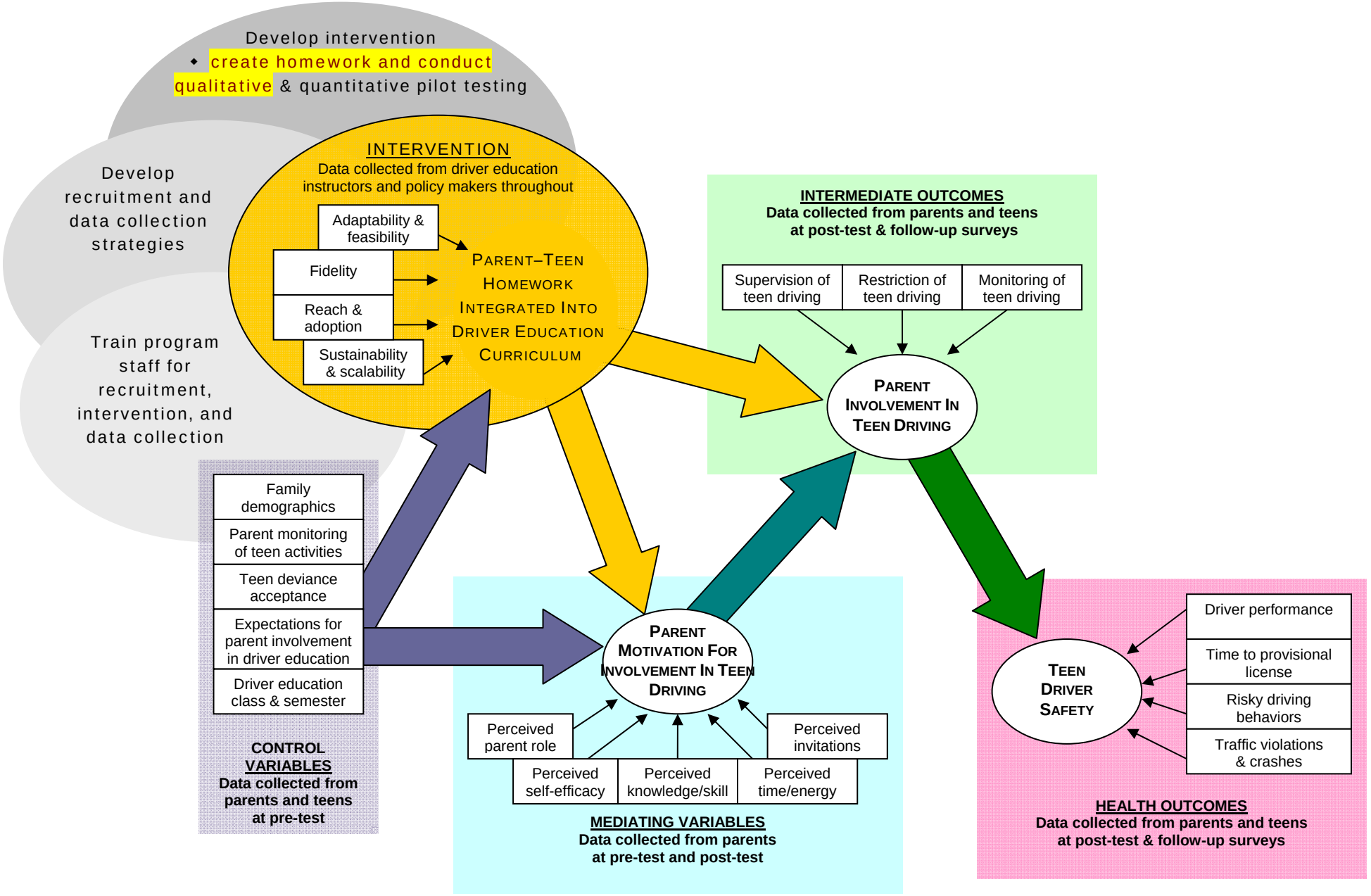

Table 3. Timeline for Tasks Related to Intervention Development, Implementation, and Evaluation (Brown indicates Montana Pilot Project)

YEAR 1	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept
Adapt parent-teen homework into driver education curriculum	***X***	***X***	***X***	***X***	***X***	***X***	***X***	***X***	***X***	***X***	***X***	***X***
Determine project staff—LIST TITLES	***X***											
Determine meeting schedules and responsibilities	***X***											
Determine number, content, and "scoring" of homework assignments		***X***	***X***	***X***								
Construct & conduct data collection for instructors & policy makers	X	X	X	X	X	X	X	X	X	X	X	X
Construct & pilot test data collection for parents & teenagers			X	X	X	X						
Determine recruitment & intervention strategies			X	X	X							
Develop training content & materials for project staff & instructors				X	X	X						
Train project staff & instructors (N=10) for summer pilot testing							N=10					
Construct and print preliminary versions of ideas, content, and instructions			***X***	***X***								
Train & Collect qualitative feedback from individual instructors, parents, and students				***X***	***X***		***X***	***X***	***X***	***X***		
Construct and print revisions of homework assignments					***X***	***X***					***X***	***X***
Collect qualitative feedback from small classes that use homework assignments						***X***	***X***	***X***	***X***	***X***	***X***	
Finalize Electronic Version of Product											***X***	***X***
Conduct Parent Survey & Process Data											***X***	***X***
Pilot test parent-teen homework assignments & procedures (quantitative feedback)								N=25 dyads	X			
Finalize recruitment, intervention, & data collection procedures									X	X		
Mass produce recruitment, intervention, & data collection materials										X	X	
Train project staff & instructors (N=10) for fall intervention											N=10	

Table 3 cont'd. Timeline for Tasks Related to Intervention Development, Implementation, and Evaluation

YEAR 2	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug
Conduct recruitment & intervention in fall classes (N=150 dyads)	X	X										
Conduct fall pre-test & post-test surveys	N=150 dyads	N=150 dyads										
Conduct fall follow-up surveys (3mos, 6mos, 9mos)					N=150 dyads			N=150 dyads			N=150 dyads	
Train project staff & instructors (N=10) for spring intervention				N=10								
Conduct recruitment & intervention in spring classes (N=150 dyads)					X	X						
Conduct spring pre-test & post-test surveys					N=150 dyads	N=150 dyads						
Conduct spring follow-up surveys (3mos, 6mos)									N=150 dyads			N=150 dyads
Train project staff & instructors (N=20) for summer intervention								N=20				
Conduct recruitment & intervention in summer I courses (N=200 dyads)									X	X		
Conduct summer I pre-test & post-test surveys									N=200 dyads	N=200 dyads		
Conduct recruitment & intervention in summer II courses (N=200 dyads)										X	X	
Conduct summer II pre-test & post-test surveys										N=200 dyads	N=200 dyads	
Conduct data collection for instructors & policy makers	X	X	X	X	X	X	X	X	X	X	X	X
YEAR 3	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug
Complete fall follow-up surveys (12mos)		N=150 dyads										
Complete spring follow-up surveys (9mos, 12mos)			N=150 dyads			N=150 dyads						
Complete summer I follow-up surveys (3mos, 6mos, 9mos, 12mos)	N=200 dyads			N=200 dyads			N=200 dyads			N=200 dyads		
Complete summer II follow-up surveys (3mos, 6mos, 9mos, 12mos)		N=200 dyads			N=200 dyads			N=200 dyads			N=200 dyads	

Pilot Study Team: This pilot study is one piece of a multi-part teen driver improvement effort of the Office of Public Instruction, the Montana Traffic Education Association and national researcher, Dr. Jessica Hartos. These partners have conducted previous studies including a survey of parents of Montana teen driver education students, upon which this project is being built. This pilot study is the first phase of a 3 year study by these partners to determine the effectiveness of involving parents in driver education as a means to reduce teen crashes. The comprehensive 3-year portion is funded separately and funding is presently being solicited from several national research funding sources by UNC researcher Dr. Hartos.

VII. SUBMITTED BY: (required)

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Note: Submitter may attach continuation sheets if necessary.

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